

Notice of Allowability

Application No.

10/601,402

Examiner

Jesse Diller

Applicant(s)

CYPHER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE dated 10/10/06.
2. ☒ The allowed claim(s) is/are 1-4, 6-14, and 16-20 (renumbered 1-18 for issue).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/136,619.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted: Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rory Rankin, Reg. 47,884, on 12/14/06.

The specification has been amended as follows: on page 1, lines 1-3, replace the paragraph with the following amended one:

This application is a continuation-in-part of U.S. patent application serial no. 10/136,619, filed May 1, 2002, **now US Patent No. 7,032,078**. This application also claims the benefit of U.S. provisional patent application serial no. 60/392,179, filed June 28, 2002.

The claims have been amended as follows:

1. **(Currently Amended)** A multiprocessing system comprising:
 - a plurality of processing subsystems, each including a cache memory;
 - a memory subsystem including a directory;
 - a network interconnecting said plurality of processing subsystems and said memory subsystem;

wherein the network includes a mode unit separate from the processing subsystems and the memory subsystem, the mode unit being configured to store an indication of whether a given block is a point-to-point mode block or a broadcast mode block, wherein the network is configured to:

receive a given coherency request initiated by a requesting processing subsystem, wherein the given coherency request is not visible to other processing subsystems or the memory subsystem; and

control, in accordance with said indication, whether the given coherency request is transmitted through said network

according to a directory protocol or a broadcast protocol; and

wherein an encoding of said given coherency request excludes an indication of whether said given coherence request is to be transmitted according to said directory protocol or said broadcast protocol; and

wherein when said coherency request is transmitted through said network according to said directory protocol, said given coherency request is transmitted through said network to only said memory subsystem.

13. (Currently Amended) A method of operating a multiprocessing system including a plurality of processing subsystems and a memory subsystem interconnected through a network, the method comprising:

a first processing subsystem initiating a coherency request; and

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a mode unit separate from the processing subsystems and the memory subsystem receiving said coherency request and indicating whether said coherency request is to be transmitted through said network according to a directory protocol or a broadcast protocol, the mode unit being configured to store an indication of whether a given block is a point-to-point mode block or a broadcast mode block, wherein the coherency request is not visible to other processing subsystems or the memory subsystem;

said network conveying said coherency request using either said directory protocol or said broadcast protocol according to said indication and transparent to said first processing subsystem, wherein when said coherency request is transmitted through said network according to said directory protocol, said given coherency request is transmitted through said network to only said memory subsystem; and

accessing a directory entry in response to said coherency request when said coherency request is transmitted through said network according to said directory protocol.

16. (Currently Amended) A multiprocessing system comprising:

a plurality of processing subsystems;

a memory subsystem;

a network interconnecting said plurality of processing subsystems and said memory subsystem, wherein said network is configured to receive a coherency request

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initiated by a requesting processing subsystem, wherein the coherency request is not visible to other processing subsystems or the memory subsystem; and

a mode unit separate from the processing subsystems and the memory subsystem, the mode unit being configured to store an indication of whether a given block is a point-to-point mode block or a broadcast mode block and configured to:

control, in accordance with said indication, whether the coherency request is transmitted through said network according to a directory protocol or a broadcast protocol, whereby a conveyance of said coherency request through said network according to either said directory protocol or said broadcast protocol is performed transparent to said plurality of processing subsystems; and

wherein when said coherency request is transmitted through said network according to said directory protocol, said coherency request is transmitted through said network to only said memory subsystem.

The following is an examiner's statement of reasons for allowance: The reasons for allowance are identical to those for claim 12, and may be found in a prior Office Action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

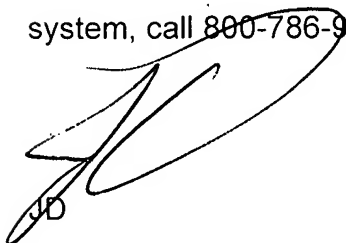
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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

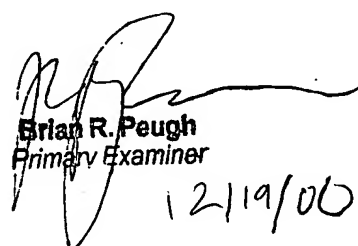
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse Diller whose telephone number is (571) 272-4173. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JD



Brian R. Peugh
Primary Examiner
12/19/00